

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013626**Date Inspected:** 21-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG Assembly Yard

8AE

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 025 located at CA048 between panel point 63&64 bike path side of segment. Welder is identified as Mr. Guo Taotao (050969). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-4113-2.

7AW

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 011 located SEG033C counter weight side of segment. Welder is identified as Mr. Tian Zhaoquan (045246). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-3G (3F)-Repair-1.

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7CW

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 050 located SP408-001 counter weight side of segment. Welder is identified as Mr. Li Yi (045268). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-2G (2F)-Repair-1 and WR12027 repair procedure.

7CW

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 050 located SP480-001 counter weight side of segment. Welder is identified as Mr. Li Yi (045268). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-2G (2F)-Repair-1 and WR12027 repair procedure.

7DE+7EE

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 007 located OBE7C cross beam side of segment. Welder is identified as Mr. Du Hengyou (037743). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-3G (3F)-Repair-1 and WR12238 repair procedure.

Y Location of repairs areas by above noted welder (037743) is located at 12238 and 1800mm.

7DE+7EE

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 008 located OBE7C bottom plate of segment. Welder is identified as Mr. Jiang Zhen (068917). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-4G (4F)-Repair-1 and CWR1426 repair procedure.

Y Location of repairs areas by above noted welder (068917) is located at 1860 and 4000mm.

### Miscellaneous Work In Progress

QA Inspector observed ZPMC's personnel performing various job functions at Tail Assembly Yard. Locations and description of work are as followed:

7CE+7DE

1. UT reject excavation performed on the side plate weld splice OBE7C-005 bike path side of segment at Y location 75mm.

2. UT reject excavation performed on the side plate weld splice OBE7C-004 bike path side of segment at Y locations 210, 5980, 6280, 6290, 6400 and 7875mm.

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## NDT Observation

This QA Inspector observed ZPMC Magnetic Particle Testing (MT) Technician performed MT on various locations in the trial assembly yard. Locations and indications are as followed:

7DE+7EE

1. Bottom plate weld splice OBE7C-008 at Y Location 4800 and 5700mm.

2. Side plate weld splice OBE7C-009 at Y Location 8500 and 9100mm bike path side of segment.

This QA Inspector observed ZPMC Ultra Sonic Testing (UT) Technician performed UT on various locations in the trial assembly yard. Locations are as followed:

7DE+7EE

1. Deck plate weld splice OBE7A-007, 008 and 009. (Exterior)

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (150-0042-2372), who represents the Office of Structural Materials for your project.

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**Inspected By:** Alaniz,Joe

Quality Assurance Inspector

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**Reviewed By:** Carreon,Albert

QA Reviewer